COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
South Central Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Lasco Bathware Inc.
1100 Industrial Park Road, Halifax County, Virginia
Permit No. SCRO30794

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Lasco Bathware Inc. has applied for a Title V Operating Permit for its South Boston facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: Date: August 30, 2006 _

Air Permit Manager: Date: August 30, 2006

Regional Director: Date: August 30, 2006

I. FACILITY INFORMATION

Permittee
Lasco Bathware Inc.
P. O. Box 117
South Boston, Virginia 24592

Facility
Lasco Bathware Inc.
1100 Industrial Park Road,

State-County-Plant Identification Number: 51-083-00037

A. SOURCE DESCRIPTION

NAICS 326191 – Lasco Bathware is a manufacturer of bath ware covered by Standard Industrial Classification (SIC) Code 3088. The facility has the potential to operate twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year. This plant produces fiberglass reinforced bath fixture molds and fiberglass reinforced acrylic bathtubs/showers.

Lasco Bathware's (Lasco) South Boston, VA facility consists of the following operations: three (3) open molding production lines: a FRP (gel coat) Line rated at 4,032 lb_{resin}/hr, an Acrylic Line rated at 6,480,000 ft^2/yr, and an Acrylic Whirlpool Line rated at 6,480,000 ft^2/yr. The South Boston facility also includes a Mold Fabrication Line rated at 420 molds per year, two (2) direct gas-fired makeup air heaters rated at 5.74×10^6 Btu/hr, each, and miscellaneous resin and styrene mixing and storage vessels. This facility does not include pultrusion, sheet molding compound manufacturing (SMC) and bulk molding compound manufacturing (BMC), centrifugal casting, and/or continuous lamination and/or casting operations. A percentage of the VOC (as styrene) emission from the FRP Line (booths G1, G5, G9, mold preparation booth G13, & styrene holding tank AG34) are controlled by a Reeco Model F or equivalent thermal regenerative thermal oxidizer (RTO) with a design control efficiency of 95% (by weight). The VOC emissions from the Acrylic Line, Acrylic Whirlpool Line, and Mold Fabrication Line are not controlled. Particulate matter (PM, PM-10) emissions from FRP Line's booths G2, G3, G4, G6, G8, G10, G12, & G14, and mixing and storage tanks AG32, AG33 and AG35; and Acrylic Line booths A19, A21, A22, A23, A24, A25, A26, A29a, and A29b are controlled by fabric filter having a design efficiency of 99% (by weight). The particulate matter emissions from the remainder of the emission units are not controlled.

This facility has the potential to emit 226 tons per year of VOCs (primarily styrene). Methyl ethyl ketone (MEK) was delisted a hazardous air pollutant (HAP) on December 19, 2005 (see Federal Register, Vol. 70, No. 242). Due to this facility's potential to emit over 100 tons per year of a criteria pollutant, and over 10 tons per year of a single HAP, Lasco Bathware is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 9 VAC 5 Chapter 80 Article 1. Lasco has three NSR permits that cover the entire facility. The FRP Line (Ref. G1-G36) and Acrylic Line (Ref. A17-A32), and resin

mixing and storage devices (Ref. AG32-AG35), which was initially permitted under a State Major Permit issued on date November 29, 1984, which was subsequently amended on September 15, 1995, April 7, 2003, April 21, 2005, and May 8, 2006. The mold fabrication line (Ref. OP1-OP5) was permitted under a minor NSR permit dated December 9, 1988, which was subsequently amended on December 17, 1993. The Acrylic Whirlpool Manufacturing Line (Ref. OA1-OA10) was initially permitted under a minor NSR Permit dated February 8, 1994 as amended on March 27, 1998. The FRP, Acrylic, Mold Fabrication, Acrylic Whirlpool lines, and mixing operations are subject to the open molding and mixing/storage requirements of 40 CFR 63 Subpart WWWW, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reinforced Plastic Composites Production.

B. COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, was conducted on September 26, 2005. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

C. EMISSIONS SUMMARY:

PLANTWIDE EMISSIONS SUMMARY [TONS PER YEAR]		
CRITERIA POLLUTANTS	POTENTIAL EMISSIONS	2005 ACTUAL EMISSIONS
PM	4.7	1.1
NOx	10.9	0.9
Volatile Organic Compounds (VOC)	226	133.75
HAPs EMISSIONS		
Styrene	226	133.5

II. EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
FRP Line							
G1	S1	Lasco Designed Spray booth	4032 lbs/hr	Reeco Model F or equivalent regenerative thermal oxidizer (RTO)	-	Styrene	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
G2	S1	Lasco Designed Spray booth	4032 lbs/hr	Polyester filter media	-	PM	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
G3	S1	First cure room, Lasco designed	Unknown	Polyester filter media	-	PM	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
G4	S1	First LAM Prep station	Unknown	Polyester filter media	-	PM	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
G5	S1	Lasco Designed Spray booth	4032 lbs/hr	RTO	-	Styrene	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
G6	S1	First LAM roll	9.0 lbs/hr	Polyester filter media	-	PM	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
G7	S1-	1st LAM cure and trim	Unknown	-	-	-	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
G8	S1	2nd LAM prep station	398 lbs/hr	Polyester filter media	-	PM	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
G9	S1	Lasco Designed Spray booth	4032 lbs/hr	RTO	-	Styrene	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
G10	S1	2nd LAM roll	5 lbs/hr	Polyester filter media	-	PM	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
G11	S1-	2nd Cure room, Lasco designed	Unknown	-	-	-	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
G12	S1	Part Pull	2254 ft^2/hr		-	-	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
G13	S1	Mold Prep Station	0.5 lbs/hr	RTO	-	Styrene	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
G14	S5	Trim booth	2254 lbs/hr	Polyester filter media	-	PM	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
G16	-	Part repair	0.2 lbs hr	-	-	-	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
G36	-	Space heater	5.74 MMBtu/hr	-	-	-	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
Emission	Stack	Emission Unit Description	Size/Rated	Pollution Control Device	PCD	Pollutant	Applicable Permit Date

Unit ID	ID		Capacity*	(PCD) Description	ID	Controlled	
Acrylic Line							
A17	-	Vacuum Forming station, TM Plastic Machinery Stations	300.2 lbs/hr	-	-	-	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
A18	-	Acrylic shells loading station	Unknown	-	-	-	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
A19	S6	Lasco Designed Spray booth	1007.3 lbs/hr	Polyester filter media	-	PM	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
A20	-	Cure Area	Unknown	-	-	-	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
A21	S7	1st LAM Prep station	Unknown	Polyester filter media	-	PM	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
A22	S8	Lasco Designed Spray booth	1007.3 lbs/hr	Polyester filter media	-	PM	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
A23	S9	Roll and Cure	3.1 lbs/hr	Polyester filter media	-	-	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
A24	S9	Prep and Cure	135.7 lbs/hr	Polyester filter media	-	-	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
A25	S8	Optional Lasco Designed Spray booth	1007.3 lbs/hr	Polyester filter media	-	PM	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
A26	S7	Optional Roll station	1.969 lbs/hr	Polyester filter media	-	PM	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
A27	-	Cure Area	11.3 tons/yr	-	-	-	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
A28	-	Part pull	6,480,000 ft^2/yr	-	-	-	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
A29a	S10	Trim booth, downdraft booth	6,480,000 ft^2/yr	Polyester filter media or self contained	-	PM	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
A29b	S11	Trim booth, downdraft booth	6,480,000 ft^2/yr	Polyester filter media	-	PM	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
A31	-	Part repair	Unknown	-	-	-	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
A32	-	Space heater	5.74 MMBtu/hr	-	-	-	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Both Lines							
AG32	S2	Gel coat mixing and storage room	293.3 lbs/hr	Polyester filter media	-	PM	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
AG33	S2	Virgin resin storage room	1216.5 lbs/hr	Polyester filter media	-	PM	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
AG34	S1	Holding tanks	2872 lbs/hr	RTO	-	Styrene	11/29/1984 amended on 9/15/95, 4/7/03, 4/21/05, and 5/8/06
AG35	S4	Mixing room	2872 lbs/hr	Polyester filter media	-	PM	11/29/1984 amended 9/15/95, 4/7/03, 4/21/05, and 5/8/06
Mold Fabrication							
OP1	S17	Mold Fabrication Spray Station	120.6 lbs/hr	-	-	-	12/9/1988 amended 12/17/93
OP2	S18	Mold Fabrication Spray Station	120.6 lbs/hr	-	-	-	12/9/1988 amended 12/17/93
OP3	S19	Mold Fabrication Weld Station	387 lbs/hr	-	-	-	12/9/1988 amended 12/17/93
OP4		Mold Fabrication Oven	420 molds/yr	-	-	-	12/9/1988 amended 12/17/93
OP5		Mold Fabrication Trim/Grind	420 molds/yr	-	-	-	12/9/1988 amended 12/17/93
Acrylic Whirlpool Manufacturing							
OA1		TM Plastic Machinery Lasco 2-Station Shuttle (vacuum forming)	504 lbs/hr	-	-	-	2/8/1994 amended 3/27/98
OA2		Mooney Hy-Solv Dispenser (mix)	968 lbs/hr	-	-	-	2/8/1994 amended 3/27/98
OA3	S14	Spray Booth	1160 lbs/hr	-	-	-	2/8/1994 amended 3/27/98
OA4	S14	Spray Booth	1160 lbs/hr	-	-	-	2/8/1994 amended 3/27/98
OA5		Ambient Cure	6,480,000 ft^2/yr	-	PM	-	2/8/1994 amended 3/27/98
OA7	S16	Grinding	11.3 tons/yr	Dust collector -	PM	-	2/8/1994 amended 3/27/98
OA8	S15	Drilling	6,480,000 ft^2/yr	-	-	-	2/8/1994 amended 3/27/98
OA9		Assembly	6,480,000 ft^2/yr	-	-	-	2/8/1994 amended 3/27/98
OA10		Hydro test	6,480,000 ft^2/yr	-	-	-	2/8/1994 amended 3/27/98

**The Size/Rated capacity and PCD efficiency is provided for informational purposes only, and is not an applicable requirement.

III. EMISSION UNIT APPLICABLE REQUIREMENTS

A. Fuel Burning Equipment

1. **Hastings direct-fired makeup air heaters (Ref. G36, A32)**
   The Hastings direct-fired makeup air heaters (Ref. G36, A32), each rated at 5.74 MMbtu/hr, are gas-fired makeup air heaters (space heaters) that were constructed in 1985. Due to the installation date, capacity (MMBtu/hr), and approved fuels of the makeup air heaters, the provisions of Article 8 of 9 VAC 5 Chapter 40 do not apply per 9 VAC 5-40-880(C)(3). The provisions of NSPS Subpart Dc does not apply to the Hastings air heaters per 40 CFR 60.4c(a), since they are not steam generating units. There are no add-on controls for any criteria pollutants, and the uncontrolled 8,760 hr/yr criteria pollutant emissions from the natural gas-fired space heaters are less than 100 tons/yr. Hence, Compliance Assurance Monitoring (CAM) does not apply to the space heaters per 40 CFR 64.2(a)(3). The Hastings makeup air heaters do not meet the definition of boilers or process heaters per 40 CFR 63.7575 and are not subject to the provisions of 40 CFR Subpart DDDDD, the NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters per 40 CFR 63.7490. The permit dated November 29, 1984, as amended September 15, 1995, April 7, 2003, April 21, 2005, and May 8, 2006 contain applicable requirements for the makeup air heaters, which must be incorporated into the Title V permit. Otherwise, these emission units would be considered as insignificant activities per 9 VAC 5-80-720(A)(6) and/or 9 VAC 5-80-720(C)(2). Opacity from the makeup air heater exhaust stacks, which is not specified in the NSR permit, is limited to 20% opacity, except for one six-minute period per hour not to exceed 30% opacity per 9 VAC 5-50-80. The makeup air heater's opacity limits have been included in the Title V permit.

2. **Limitations**
   The permit dated November 29, 1984, as amended September 15, 1995, April 7, 2003, April 21, 2005, and May 8, 2006 include the following limits:

   the approved fuels for the makeup air heaters;
   the hourly and annual NOx and CO emissions; and

3. **Periodic Monitoring**
   Due to the small capacity (5.74 MMBtu/hr, each), low polluting fuels (natural gas and propane), and low annual emissions (5.14 tons/yr of NOx, total), periodic monitoring is not required for these two emission units (Ref. G36, A32). The permittee shall use the most recent AP42 Natural Gas and/or Propane External Combustion NOx and CO emission factors from either Sections 1.4 and/or 1.5 to demonstrate compliance to the annual emission limits.

4. **Recordkeeping**
   The permittee shall maintain records of monthly and annual natural gas and propane consumption for a period of five (5) years.

5. **Testing**
   The permit does not require source tests. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.

6. **Reporting**
   The Title V permit contains the standard testing, malfunction, and compliance reporting requirements in Section V.A.2 and VIII.C-F of the permit.

B. Process Equipment Requirements

1. **Compliance Assurance Monitoring**
   The reinforced plastic bathware manufacturing emission units are subject to the provision of 40 CFR 63 Subpart WWWW, which include adequate monitoring to insure compliance to the applicable emission limits and work practice standards. The particulate matter emissions from the FRP, Acrylic, Mold Fabrication, Acrylic Whirlpool lines, and mixing operations exhaust stacks are less than 100 tons/yr, each, therefore CAM does not apply per 40 CFR 64.2(a)(3). Therefore, CAM does not apply to the reinforced plastic bathware manufacturing emission units per 40 CFR 64.2(b)(i).

2. **FRP Line (Ref. (G1 - G16, AG32 - AG 34) and Acrylic Line (Ref. A17-A31)**

   a. Process Description

   The primary difference between the FRP Line and the Acrylic Line is that the Acrylic Line starts out with sheet of acrylic plastic that is heated and vacuum formed over a mold to start the fixture manufacturing process. The FRP Line uses a liquid gelcoat sprayed over a mold to begin the manufacturing process for the fixture. Bathware fixtures are produced in open molding assembly lines by applying layers (laminating) of thermosetting plastic resin mixed with other inert materials on a mold (FRP Line) or on a molded sheet of acrylic plastic (Acrylic Line). The liquid thermosetting plastic mixture is sprayed on to the open mold/plastic in successive layers. Each primary layer is allowed to partially cure before the next layer is applied. After curing of the final layer, the product is separated from the mold (FRP Line). The mold is then cleaned and prepared for the next cycle. The thermosetting plastic consists of resin that contains styrene monomer. While the production process relies upon the polymerization of styrene monomer to make the final product a rigid solid, a certain amount of the styrene is emitted as a volatile gas. These emissions occur primarily when the thermosetting plastic mixture is being spray applied and during the initial stages of curing.

   The majority of the VOC and particulate matter emissions from the FRP Line (Booths G1- G13, & holding tank AG34) are controlled by a combination concentrator/regenerative thermal oxidizer (RTO) or equivalent RTO. The RTO has a demonstrated control efficiency of 97% for VOC emissions. Particulate matter (PM, PM-10) emissions from FRP Trim Booths G14 and tanks/mixing room AG32, AG33, and AG35 are controlled by fabric filters having a design control efficiency of 99%. Particulate matter emissions from FRP process booth G16 are not emitted to ambient air. There are no add-on VOC emissions controls for the Acrylic Line. Particulate matter emissions (PM, PM-10) from the Acrylic Line Booths A19, A21, A22, A23, A24, A25, A26, A29A, and A29B are controlled by fabric filters having a design control efficiency of 99%. Particulate matter emissions from the Acrylic Line Booths A20, A27, and A31 are not emitted to ambient air. Quality Inspection Stations (Ref. A30, G15) are not sources of air emissions and are not 40 CFR 63 Subpart WWWW affected facilities. Opacity from the FRP and Acrylic Lines' exhaust stacks (Ref. S1-S11) is not stated in the NSR permit, and is limited to 20% opacity, except for one six-minute period per hour not to exceed 30% opacity per 9 VAC 5-50-80.

b. Limits

In addition to the 40 CFR 63 Subpart WWWW requirements, the limits for the FRP and Acrylic Lines are carried forward from the November 29, 1984, as amended September 15, 1995, April 7, 2003, April 21**,** 2005, and May 8, 2006 permits into the Title V permit:

A RTO will control VOC emissions from booths G1-G13 and holding tank AG34.
The allowable hourly and annual VOC emissions are limited.
The RTO has the following requirements:
- The approved RTO fuel is specified.
- A minimum VOC control efficiency,
- A minimum operating temperature,
- A minimum residence time and an average residence time,
- Sufficient air for proper oxidation of VOCs,
- Maintain an inventory of spare parts,
- Maintain the RTO and associated piping and valves to minimize leaks,

VOC emissions from the production lines will be reduced by the use of the following techniques:
- airless sprayer,
- suppressed resins,
- high filler content resins,
- minimum styrene containing resins,
- close control of material consumption.

Process stacks (S2, S4, S6, S7, S8, S9) have a minimum stack height and airflow.
Develop written operating and maintenance procedures for air pollution control devices, and
The opacity from the exhaust stacks.

c. Monitoring

In addition to the 40 CFR 63 Subparts WWWW, SS, and A requirements, the monitoring requirements for the FRP and Acrylic Lines are carried forward from the November 29, 1984, as amended September 15, 1995, April 7, 2003, April 21**,** 2005, and May 8, 2006 permits into the Title V permit:

- The combustion temperature of the RTO shall be continuously monitored.
- A device to determine the exhaust airflow from the RTO is required.

d. Periodic Monitoring

Periodic monitoring requirements for opacity from the FRP and Acrylic Lines' exhaust stacks (Ref. S2, S4, S5, S6, S7, S8, S9, S10, S11) is based on observation of the presence or absence of visible emissions. In the event visible emissions are observed, corrective action is required, or VEEs as determined by EPA Method 9 are required to demonstrate compliance with the applicable opacity limit. The NSR permit and Subpart WWWW contain sufficient monitoring to insure the proper operation of the RTO; therefore, additional periodic monitoring of the exhaust stack (Ref. S1) is not required.

e. Recordkeeping

In addition to the 40 CFR 63 Subparts WWWW and A requirements, the recordkeeping requirements for the FRP and Acrylic Lines are carried forward from the November 29, 1984, as amended September 15, 1995, April 7, 2003, April 21**,** 2005, and May 8, 2006 permits into the Title V permit:

- Records of gel coating usage are required,

Emission calculation records are required,
Destruction efficiency, temperature, residence time, and exhaust flow rate of the RTO,
Records of employee training, and scheduled and unscheduled maintenance,
Visual emission logs are required to verify compliance with the periodic monitoring requirements.

f. Testing

In addition to the 40 CFR 63 Subparts WWWW, SS, and A requirements, the availability of testing / monitoring ports for the FRP and Acrylic Lines are carried forward from the November 29, 1984, as amended September 15, 1995, April 7, 2003, April 21**,** 2005, and May 8, 2006 permits into the Title V permit.

g. Reporting

In addition to the 40 CFR 63 Subparts WWWW and A requirements, the Title V permit contains the standard testing, malfunction, and compliance reporting requirements in Section IV.A and VIII C-F.

3. **Mold Fabrication Line (Ref. OP1 - OP5)**

a. Process Description

Molds are produced in an open molding assembly line (Ref. OP1-OP5) by applying layers (laminating) of thermosetting plastic resin mixed with other inert materials, similar to the FRP production process. The mold is mounted to a steel framework and then cured in an oven. After curing, the mold is trimmed to the correct dimensions in Booth OP5. The PM-10 emissions from Booth OP5 are not vented to the atmosphere and this booth is not a source of VOC emissions. Hence, Booth OP5 is not an emission unit or a Subpart WWWW affected facility. There are no add-on controls for either VOC or particulate matter emissions from the Mold Fabrication exhaust stacks (Ref. S17, S18, S19).

b. Limits

In addition to the 40 CFR 63 Subpart WWWW requirements, the limits for the Mold Fabrication Line (Ref. OP1 – OP5) are carried forward from the December 9, 1988 Permit, as amended on December 17, 1993 into the Title V permit:

The annual resin throughput is limited.
The allowable hourly and annual VOC emissions are limited.
Opacity from the exhaust stacks (Ref. S17, S18) is limited to 5% opacity.
Opacity from the exhaust stack (Ref. S19) is subject to the new source opacity limit.

c. Monitoring

In addition to the 40 CFR 63 Subpart WWWW requirements, the monitoring requirements for the Mold Fabrication Line (Ref. OP1 – OP5) are carried forward from the December 9, 1988 Permit, as amended on December 17, 1993 into the Title V permit

d. Periodic Monitoring

Periodic monitoring requirements for opacity from the Mold Fabrication Line's (Ref. OP1 – OP3) exhaust stacks (Ref. S17, S18, S19) is based on observation of the presence or absence of visible emissions. In the event visible emissions are observed, corrective action is required, or VEEs as determined by EPA Method 9 are required to demonstrate compliance with the applicable opacity limit.

e. Recordkeeping

In addition to the 40 CFR 63 Subparts WWWW and A requirements, the recordkeeping requirements for the Mold Fabrication Line (Ref. OP1 – OP5) are carried forward from the February 8, 1994 Permit, as amended March 27, 1998 into the Title V permit:

Records of resin usage is required,
Emission calculation records are required,
Records of employee training, and scheduled and unscheduled maintenance.
Visual emission logs are required to verify compliance with the periodic monitoring requirements.

f. Testing

The testing requirements 40 CFR 63 Subparts WWWW and A for the Mold Fabrication Line (Ref. OP1 – OP4) is incorporated by reference into the Title V permit:

g. Reporting

In addition to the 40 CFR 63 Subparts WWWW and A requirements, the Title V permit contains the standard testing, malfunction, and compliance reporting requirements in Section IV.B and VIII.C-F.

4. **Acrylic Whirlpool Line (Ref. Ref. OA1-OA9)**

a. Process Description

Acrylic whirlpools are produced in open molding assembly lines by applying layers (laminating) of thermosetting plastic resin mixed with other inert materials on a premolded sheet of acrylic plastic, similar to the Acrylic Line. The liquid thermosetting plastic mixture is sprayed on to the molded plastic in successive layers. After the bath fixture is cured, the fixture is trimmed and holes are cut for the installation of the plastic piping, pump, and electric motor. The plastic piping is glued together with a solvent-based adhesive. The PM-10 emissions from Booth OA6 are not vented to the atmosphere and this booth is not a source of VOC emissions. Similarly, Booth OA10 is not a source of air emissions. Hence, Booths OA6 and OA10 are not emission units or a Subpart WWWW affected facilities.

b. Limits

In addition to the 40 CFR 63 Subpart WWWW requirements, the limits for the Acrylic Whirlpool Line (Ref. OA1-5, OA7-9) are carried forward from the February 8, 1994 Permit, as amended March 27, 1998 into the Title V permit:

The annual resin throughput is limited.
The allowable hourly and annual VOC emissions are limited.
Opacity from the exhaust stacks (Ref. S14, S15, S16) is limited.
Develop written operating and maintenance procedures for air pollution control devices,

c. Monitoring

In addition to the 40 CFR 63 Subparts WWWW and A requirements, the availability of testing / monitoring ports for the Acrylic Whirlpool Line are carried forward from the February 8, 1994 Permit, as amended March 27, 1998 into the Title V permit.

d. Periodic Monitoring

Periodic monitoring requirements for opacity from the Acrylic Whirlpool Line's (Ref. OA3, OA4, OA7, OA8) exhaust stacks (Ref. S14, S15, S16, S15) is based on observation of the presence or absence of visible emissions. In the event visible emissions are observed, corrective action is required, or VEEs as determined by EPA Method 9 are required to demonstrate compliance with the applicable opacity limit.

e. Recordkeeping

In addition to the 40 CFR 63 Subparts WWWW and A requirements, the recordkeeping requirements for the Acrylic Whirlpool Line (Ref. OA1-9) are carried forward from the February 8, 1994 Permit, as amended March 27, 1998 into the Title V permit:

Records of resin and PVC glue usage are required,
Emission calculation records are required,
Records of employee training, and scheduled and unscheduled maintenance.
Visual emission logs are required to verify compliance with the periodic monitoring requirements.

f. Testing

The testing requirements 40 CFR 63 Subparts WWWW and A for the Acrylic Whirlpool Line (Ref. OA1-5, OA7-9) is incorporated by reference into the Title V permit:

g. Reporting

The Title V permit contains the standard testing, malfunction, and compliance reporting requirements in Section IV.C and VIII.C-F. The reporting requirements for existing open molding of CFR 63 Subparts WWWW and A apply to the Acrylic Whirlpool Line (Ref. OA1-5, OA7-9). The reporting requirements of 40 CFR 63 Subparts WWWW and A for the Acrylic Whirlpool Line are incorporated by reference.

IV. GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

A. SPACE HEATING

The Lasco-South Boston facility has approximately 65 natural gas/propane-fired comfort space heaters with a total heat input capacity in excess of 8,625,000 Btu/hr (see source's 1984 and 1993 permit applications). These gas-fired space heaters are considered to be insignificant emission units per 9 VAC 5-80-1720(C). The source stated that these comfort space heaters will be fired with a gaseous fuel (natural gas), but may include propane, which also emits less air pollution than either Nos. 1 or 2 fuel oils. The source is required to track total annual natural gas and/or propane consumption for the requisite emissions contributions.

B. MACT REQUIREMENTS

The FRP, Acrylic, Mold Fabrication, Acrylic Whirlpool lines meet the definition of open molding for 40 CFR 63 Subpart WWWW, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reinforced Plastic Composites Production and also include resin mixing and storage facilities. The FRP, Acrylic, Mold Fabrication, Acrylic Whirlpool lines, and mixing/storage operations were constructed prior to August 2, 2001 and have not been subsequently reconstructed, are therefore considered to be existing facilities per 40 CFR 63.5795 and 40 CFR 63.5. Some of the process steps (i.e. mold stripping) and chemicals (i.e. mold sealing and release agents) used in the manufacturing of reinforced plastic composites have been specifically excluded from 40 CFR 63 Subpart WWWW per §§40 CFR 63.5790(c).

1. **Limits**
   The work practice standards and emission limits for existing open molding in Tables 1, 3, and 5 of 40 CFR 63 Subpart WWWW, apply to the FRP, Acrylic, Mold Fabrication, and Acrylic Whirlpool Lines. The source has several options to demonstrate compliance to the HAPs emission limits and work practice standards, and can elect to switch between options with only written notice to the permitting authority. Therefore, the Title V Permit does not identify the specific compliance option. The source must be in compliance to the provisions of 40 CFR 63 Subpart WWWW by April 21, 2006 per §§40 CFR 63.5800, except when the source elects to use the rolling 12-month weighted average HAPS emission option compliance option. The applicable requirements of 40 CFR 63 Subpart WWWW for the FRP, Acrylic, Mold Fabrication, Acrylic Whirlpool Lines are incorporated by reference in the Title V permit.

2. **Testing**
   The initial compliance testing requirements for existing open molding of 40 CFR 63 Subpart WWWW, apply to the FRP, Acrylic, Mold Fabrication, and Acrylic Whirlpool Lines. The testing requirements of 40 CFR 63 Subparts WWWW, SS, and A are incorporated by reference in the Title V permit. Initial performance testing on the condensor/RTO was performed on February 16, 2006 in accordance with Subpart WWWW and Subpart SS. Source test results indicate an overall capture and control efficiency for the FRP process line of 97%. Therefore, the initial performance testing requirements of 40 CFR 63 Subparts WWWW and SS have been streamlined out of the Title V permit. Subsequent compliance testing requirements for existing open molding of 40 CFR 63 Subparts WWWW, SS, and A apply to the FRP, Acrylic, Mold Fabrication, and Acrylic Whirlpool Lines, where applicable.

3. **Monitoring**
   The monitoring requirements for existing open molding of §§40 CFR 63.5895 of Subpart WWWW apply to the FRP, Acrylic, Mold Fabrication, and Acrylic Whirlpool Lines. The monitoring requirements of 40 CFR 63 Subpart SS apply to the RTO.

4. **Reporting**
   The reporting requirements for existing open molding of 40 CFR 63 Subparts WWWW and A apply to the FRP, Acrylic, Mold Fabrication, and Acrylic Whirlpool Lines. The source can make the Subpart WWWW semiannual reports in conjunction with the semiannual Title V permit reports.

5. **Recordkeeping**
   The initial performance testing, subsequent testing, monitoring, continuous compliance, notifications, reporting, and record keeping requirements of 40 CFR 63 Subparts WWWW, SS, and A apply to this facility, and have been incorporated by reference into the Title V Permit.

C. Comments on General Conditions

1. **Permit Expiration**
   This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia,* and the "Department of Environmental Quality Agency Policy Statement NO. 3-2001". This general condition cite(s) the Article(s) that follow(s):

   Article 1 (9 VAC 5-80-50 et seq.) and Part II of 9 VAC 5 Chapter 80 Federal Operating Permits for Stationary Sources

   This general condition cites the sections that follow:
   9 VAC 5-80-80 Application
   9 VAC 5-80-140 Permit Shield
   9 VAC 5-80-150 Action on Permit Applications

2. **Failure/Malfunction Reporting**
   Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction. This general condition cites the sections that 9 VAC 5-50-50, Notification, Records and Reporting apply to this facility.

3. **Permit Modification**

   This general condition cites the sections that follow:
   9 VAC 5-80-50 Applicability, Federal Operating Permit for Stationary Sources
   9 VAC 5-80-190 Changes to Permits.
   9 VAC 5-80-260 Enforcement.
   9 VAC 5-80-1100 Applicability, Permits for New and Modified Stationary Sources

4. **Malfunction as an Affirmative Defense**
   The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

   This general condition cites the sections that follow:

   9 VAC 5-20-180 Facility and Control Equipment Maintenance or Malfunction
   9 VAC 5-80-110 Permit Content

5. **Asbestos Requirements**
The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

This general condition cites the regulatory sections that follow:

9 VAC 5-60-70 Designated Emissions Standards
9 VAC 5-80-110 Permit Content

6. **FUTURE APPLICABLE REQUIREMENTS**
None have been specifically identified.

7. **INAPPLICABLE REQUIREMENTS**
As previously discussed, CAM does not apply to the bathware manufacturing lines. The two 5.74 MMBtu/hr gas/propane-fired Hastings direct-fired makeup air heaters (Ref. G36, A32) are not subject to the provisions of National Emission Standards for Hazardous Air Pollutants From for Industrial, Commercial, and Institutional Boilers and Process Heaters and 40 CFR 63 Subpart DDDDD per 40 CFR 63.7490 and 40 CFR 63.7575.

8. **COMPLIANCE PLAN**
None is currently required.

9. **INSIGNIFICANT EMISSION UNITS**
The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation [1]	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
G38	Hastings LB-3	9 VAC 5-80-720 C		0.36 MMBtu
G39	Hastings LB-6	9 VAC 5-80-720 C		0.468 MMBtu
G40	Maxon heater	9 VAC 5-80-720 C		0.55 MMBtu
G41	Natural gas heater	9 VAC 5-80-720 C		3.5MMbtu
A41	Hastings LB-50	9 VAC 5-80-720 C		4.70 MMBtu
G15	Quality Inspection	9 VAC 5-80-720 B	VOC, PM-10	<0.5 tons/yr
A42	Hastings LB-3	9 VAC 5-80-720 C		0.36 MMBtu
AG36	Natural gas heater	9 VAC 5-80-720 C		0.06 MMBtu
H-1	Natural gas heaters	9 VAC 5-80-720 C		2.066 MMBtu
H-2	Natural gas heaters	9 VAC 5-80-720 C		3.099 MMBtu
H-3	Natural gas heaters	9 VAC 5-80-720 C		0.387 MMBtu
OA6	Trimming	9 VAC 5-80-720 B	PM-10	< 5.0 tons/yr
OA10	Hydro testing	9 VAC 5-80-720 B		
A30	Quality Inspection	9 VAC 5-80-720 B	VOC, PM-10	<0.5 tons/yr

[1]The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

10. **CONFIDENTIAL INFORMATION**

No information submitted in the Title V permit application has been identified as confidential.

11. **PUBLIC PARTICIPATION**

The proposed permit will be place on public notice in the South Boston Gazette-Virginian from June 14, 2006 to July 14, 2006.